ENGINEERING EVALUATION REPORT FOR PERMIT TO CONSTRUCT/OPERATE

Applicant's Name: CAJOLEBEN INC., dba GALASSO'S BAKERY Facility ID: 72351

Mailing Address: 10820 SAN SEVAINE WAY
MIRA LOMA, CALIFORNIA 91752

Equipment Location: SAME

EQUIPMENT DESCRIPTION

Lead Application

Appl. No. 556550: Bakery Oven – Modification to vent to thermal oxidizer

BAKERY OVEN NO. 2, FME, MODEL NO. I-1280, 12'-0" W. X 80'-0" L. X 10'-0" H., 3,000,000 BTU/HR, NATURAL GAS FIRED ONLY, WITH TWO LOW NOX BURNERS, 1,500,000 BTU/HR EACH.

Permit Conditions

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.

2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.

3. VOC EMISSIONS FROM THIS OVEN SHALL BE LESS THAN 50 POUNDS IN ANY ONE DAY ON AN UNCONTROLLED BASIS.
[RULE 1153 & RULE 1303(b)(2)-OFFSET]

4. VOC EMISSIONS SHALL BE CALCULATED USING ATTACHMENT "A" OF RULE 1153.
[RULE 1153]

5. OPERATING RECORDS SHALL BE MAINTAINED ACCORDING TO RULE 1153(g).
[RULE 1153]

6. RECORDS OF THE DAILY VOC EMISSIONS FROM THIS OVEN AND MONTHLY VOC EMISSIONS FROM THIS FACILITY SHALL BE MAINTAINED IN A FORMAT APPROVED BY THE DISTRICT TO DEMONSTRATE COMPLIANCE WITH CONDITION NO. 3. SUCH RECORDS SHALL BE RETAINED ON THE PREMISES FOR A PERIOD OF NOT LESS THAN FIVE YEARS AND BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1303(b)(2)-OFFSET]

7. THIS EQUIPMENT SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULE 1147.

8. THE OVEN BURNERS SHALL NOT EMIT MORE THAN 30 PPM OF OXIDES OF NITROGEN (NOX), CALCULATED AS NO2, MEASURED BY VOLUME ON A DRY BASIS AT 3% O2 AVERAGED OVER A PERIOD OF 15 CONSECUTIVE MINUTES.

9. THIS EQUPMENT SHALL NOT BE OPERATED UNLESS IT IS VENTED TO AIR POLLUTION CONTROL EQUIPMENT WHICH IS IN FULL USE AND WHICH HAS BEEN ISSUED AN OPERATING PERMIT BY THE EXECUTIVE OFFICIER.

Periodic Monitoring:

10. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSIONS FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT WHENEVER THERE IS A PUBLIC COMPLAINT OF VISIBLE EMISSIONS, WHENEVER VISIBLE EMISSIONS ARE OBSERVED, AND ON AN ANNUAL BASIS, AT LEAST, UNLESS THE EQUIPMENT DID NOT OPERATE DURING THE ENTIRE ANNUAL PERIOD. THE ROUTINE ANNUAL INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED THAT LAST MORE THAN THREE MINUTES IN ANY ONE-HOUR, THE OPERATOR SHALL EITHER:

    A. VERIFY AND CERTIFY WITHIN 24 HOURS THAT THE EQUIPMENT CAUSING THE EMISSION AND ANY ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT ARE OPERATING NORMALLY ACCORDING TO THEIR DESIGN AND STANDARD PROCEDURES AND UNDER THE SAME CONDITIONS UNDER WHICH COMPLIANCE WAS ACHIEVED IN THE PAST;

    B. TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN ACCORDANCE WITH THE REPORTING REQUIREMENTS IN SECTION K OF THIS PERMIT; OR

    C. HAVE A CARB-CERTIFIED SMOKE READER DETERMINE COMPLIANCE WITH THE OPACITY STANDARD, USING EPA METHOD 9 OR THE PROCEDURES IN THE CARB MANUAL “VISIBLE EMISSION EVALUATION”, WITHIN THREE BUSINESS DAYS AND REPORT ANY DEVIATIONS TO AQMD.

    THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

A. STACK OR EMISSION POINT IDENTIFICATION;

B. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;

C. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND

D. VISIBLE EMISSION OBSERVATION RECORDED BY A CERTIFIED SMOKE READER. [RULE 3004 (a)(4)]

11. PERMIT SHIELD. NOT WITHSTANDING THE OTHER REQUIREMENTS AND CONDITIONS IN THIS PERMIT, THIS EQUIPMENT(S) IS NOT SUBJECT TO THE FOLLOWING RULE REQUIREMENTS:

1. RULE 1153 (c)(1), AMENDED JANUARY 13TH, 1995;

2. RULE 1153 (c)(2), AMENDED JANUARY 13TH, 1995

COMPLIANCE WITH THE CONDITIONS OF THIS TITLE V PERMIT SHALL BE DEEMED IN COMPLIANCE WITH ANY REGULATORY REQUIREMENTS APPLICABLE AS OF THE DATE OF PERMIT ISSUANCE TO THIS FACILITY, PROVIDED THAT SUCH REGULATORY REQUIREMENTS ARE INCLUDED AND SPECIFICALLY IDENTIFIED IN THIS PERMIT. NOTHING IN THIS PERMIT OR IN ANY PERMIT SHIELD CAN ALTER OR AFFECT:

A. UNDER SECTION 303 OF THE FEDERAL CLEAN AIR ACT, THE PROVISIONS FOR EMERGENCY ORDERS;

B. THE LIABILITY OF THE OPERATOR FOR ANY VIOLATION OF APPLICABLE REQUIREMENTS PRIOR TO OR AT THE TIME OF PERMIT ISSUANCE;

C. THE APPLICABLE REQUIREMENTS OF THE ACID RAIN PROGRAM;

D. THE ABILITY OF EPA TO OBTAIN INFORMATION FROM THE OPERATOR PURSUANT TO SECTION 114 OF THE FEDERAL CLEAN AIR ACT;

E. THE APPLICABILITY OF STATE OR LOCAL REQUIREMENTS THAT ARE NOT "APPLICABLE REQUIREMENTS", AS DEFINED IN RULE 3000, AT THE TIME OF PERMIT ISSUANCE BUT WHICH DO NOT APPLY TO THE FACILITY, SUCH AS TOXICS REQUIREMENTS UNIQUE TO THE STATE; OR

F. THE APPLICABILITY OF REGULATORY REQUIREMENTS WITH COMPLIANCE DATES AFTER THE PERMIT ISSUANCE DATE. THIS PERMIT SHIELD SHALL NOT APPLY TO ANY OPERATIONAL CHANGE MADE PURSUANT TO THE OPERATIONAL FLEXIBILITY PROVISIONS OF DISTRICT RULE 3005. [RULE 3004 (c)(1)]

Emissions And Requirements:

12. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
VOC: RULE 1153
NOX: RULE 1147

Appl. No. 555587: Bakery Oven – Equipment Operating without a Permit

BAKERY OVEN NO. 1B, CHUBCO, MODEL SUPERFLO 2328075, 15'-0" W. X 76'-0" L. X 9'-0" H., 5,400,000 BTU/HR, NATURAL GAS FIRED ONLY, WITH ONE LOW NOX BURNER, TWO 2.0 H.P. EXHAUST FANS, AND 5.0 H.P. CONVEYOR.

Permit Conditions

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.

2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.

3. VOC EMISSIONS FROM THIS OVEN SHALL BE LESS THAN 50 POUNDS IN ANY ONE DAY ON AN UNCONTROLLED BASIS.
[RULE 1153 & RULE 1303(b)(2)-OFFSET]

4. VOC EMISSIONS SHALL BE CALCULATED USING ATTACHMENT "A" OF RULE 1153.
[RULE 1153]

5. OPERATING RECORDS SHALL BE MAINTAINED ACCORDING TO RULE 1153(g).
[RULE 1153]

6. RECORDS OF THE DAILY VOC EMISSIONS FROM THIS OVEN AND MONTHLY VOC EMISSIONS FROM THIS FACILITY SHALL BE MAINTAINED IN A FORMAT APPROVED BY THE DISTRICT TO DEMONSTRATE COMPLIANCE WITH CONDITION NO. 3. SUCH RECORDS SHALL BE RETAINED ON THE PREMISES FOR A PERIOD OF NOT LESS THAN FIVE YEARS AND BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1303(b)(2)-OFFSET]

7. THIS EQUIPMENT SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULE 1147.

8. THE OVEN BURNERS SHALL NOT EMIT MORE THAN 30 PPM OF OXIDES OF NITROGEN (NOX), CALCULATED AS NO2, MEASURED BY VOLUME ON A DRY BASIS AT 3% O2 AVERAGED OVER A PERIOD OF 15 CONSECUTIVE MINUTES.

9. THIS EQUPMENT SHALL NOT BE OPERATED UNLESS IT IS VENTED TO AIR POLLUTION CONTROL EQUIPMENT WHICH IS IN FULL USE AND WHICH HAS BEEN ISSUED AN OPERATING PERMIT BY THE EXECUTIVE OFFICIER.

10. A SOURCE TEST SHALL BE CONDUCTED TO VERIFY COMPLIANCE WITH NOX EMISSION LIMIT SPECIFIED IN CONDITION NO. 8.

11. THE OPERATOR SHALL MAINTAIN ADEQUATE RECORDS TO VERIFY COMPLIANCE WITH CONDITION NO. 8 ABOVE AND BE MADE AVAILABLE TO THE EXECUTIVE OFFICER OR HIS REPRESENTATIVE UPON REQUEST.

12. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL CONDUCT SOURCE TEST ACCORDING TO THE CONDITIONS OF THIS PERMIT.

13. THE SOURCE TEST SHALL MEASURE THE COMBUSTION EMISSION FROM THE BURNERS ONLY.

14. A SOURCE TEST PROTOCOL SHALL BE SUBMITTED WITHIN 60 DAYS AFTER INITIAL START-UP OF THE NEW BURNERS, UNLESS OTHERWISE APPROVED IN WRITING BY THE EXECUTIVE OFFICER.

15. A SOURCE TEST SHALL BE CONDUCTED WITHIN 180 DAYS AFTER INITIAL START-UP OF THE NEW BURNERS, UNLESS OTHERWISE APPROVED IN WRITING BY THE EXECUTIVE OFFICER.

16. SOURCE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH SCAQMD METHOD 100.1. THE TESTS SHALL BE CONDUCTED WHILE THE OVEN BURNER IS OPERATING AT MAXIMUM, MINIMUM, AND AVERAGE FIRING RATES. THE SAMPLING TIMES SHALL BE AT LEAST 15 CONSECUTIVE MINUTES.

17. WRITTEN CORRESPONDENCE SHALL BE ADDRESSED TO SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, P.O. BOX 4941, DIAMOND BAR, CA 91765, AND REFERENCING APPLICATION NO. 555587.

18. WRITTEN NOTICE OF THE SOURCE TEST SHALL BE SUBMITTED TO THE DISTRICT (ADDRESSED TO SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, P.O. BOX 4941, DIAMOND BAR, CA 91765) AT LEAST 14 DAYS PRIOR TO TESTING SO THAT AN OBSERVER MAY BE PRESENT.

19. TWO COMPLETE COPIES OF THE SOURCE TEST REPORT SHALL BE SUBMITTED TO THE DISTRICT, WITHIN 45 DAYS AFTER THE TEST. THE REPORT SHALL INCLUDE, BUT NOT BE LIMITED TO EMISSIONS RATES IN POUNDS PER HOUR AND CONCENTRATIONS IN PPMV AT THE OUTLET EXHAUST OF THE OVEN BURNERS, MEASURED ON A DRY BASIS AT 3% OXYGEN. THE FOLLOWING OPERATING DATA SHALL ALSO BE INCLUDED FOR EACH FIRING RATE:

    A. EXHAUST FLOW RATES, IN ACTUAL CUBIC FEET PER MINUTE (ACFM),
    B. FIRING RATES, IN BTU PER HOUR,
    C. OXYGEN CONTENT OF THE EXHAUST GASES, IN PERCENT, AND

D. FUEL FLOW RATE.

20. A TESTING LABORATORY CERTIFIED BY THE CALIFORNIA AIR RESOURCES BOARD IN THE REQUIRED TEST METHODS FOR CRITERIA POLLUTANT TO BE MEASURED, AND IN COMPLIANCE WITH DISTRICT RULE 304 (NO CONFLICT OF INTEREST) SHALL CONDUCT THE TEST.

21. SAMPLING FACILITIES SHALL COMPLY WITH THE DISTRICT GUIDELINES FOR CONSTRUCTION OF SAMPLING AND TESTING FACILITIES, PURSUANT TO RULE 217.

Periodic Monitoring:

22. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSIONS FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT WHENEVER THERE IS A PUBLIC COMPLAINT OF VISIBLE EMISSIONS, WHENEVER VISIBLE EMISSIONS ARE OBSERVED, AND ON AN ANNUAL BASIS, AT LEAST, UNLESS THE EQUIPMENT DID NOT OPERATE DURING THE ENTIRE ANNUAL PERIOD. THE ROUTINE ANNUAL INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED THAT LAST MORE THAN THREE MINUTES IN ANY ONE-HOUR, THE OPERATOR SHALL EITHER:

A. VERIFY AND CERTIFY WITHIN 24 HOURS THAT THE EQUIPMENT CAUSING THE EMISSION AND ANY ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT ARE OPERATING NORMALLY ACCORDING TO THEIR DESIGN AND STANDARD PROCEDURES AND UNDER THE SAME CONDITIONS UNDER WHICH COMPLIANCE WAS ACHIEVED IN THE PAST;

B. TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN ACCORDANCE WITH THE REPORTING REQUIREMENTS IN SECTION K OF THIS PERMIT; OR

C. HAVE A CARB-CERTIFIED SMOKE READER DETERMINE COMPLIANCE WITH THE OPACITY STANDARD, USING EPA METHOD 9 OR THE PROCEDURES IN THE CARB MANUAL “VISIBLE EMISSION EVALUATION”, WITHIN THREE BUSINESS DAYS AND REPORT ANY DEVIATIONS TO AQMD.

THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

D. STACK OR EMISSION POINT IDENTIFICATION;

E. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;

F. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND

G. VISIBLE EMISSION OBSERVATION RECORDED BY A CERTIFIED SMOKE READER.

[RULE 3004 (a)(4)]

23. PERMIT SHIELD. NOT WITHSTANDING THE OTHER REQUIREMENTS AND CONDITIONS IN THIS PERMIT, THIS EQUIPMENT(S) IS NOT SUBJECT TO THE FOLLOWING RULE REQUIREMENTS:

1. RULE 1153 (c)(1), AMENDED JANUARY 13TH, 1995;
2. RULE 1153 (c)(2), AMENDED JANUARY 13TH, 1995

COMPLIANCE WITH THE CONDITIONS OF THIS TITLE V PERMIT SHALL BE DEEMED IN COMPLIANCE WITH ANY REGULATORY REQUIREMENTS APPLICABLE AS OF THE DATE OF PERMIT ISSUANCE TO THIS FACILITY, PROVIDED THAT SUCH REGULATORY REQUIREMENTS ARE INCLUDED AND SPECIFICALLY IDENTIFIED IN THIS PERMIT. NOTHING IN THIS PERMIT OR IN ANY PERMIT SHIELD CAN ALTER OR AFFECT:

A. UNDER SECTION 303 OF THE FEDERAL CLEAN AIR ACT, THE PROVISIONS FOR EMERGENCY ORDERS;

B. THE LIABILITY OF THE OPERATOR FOR ANY VIOLATION OF APPLICABLE REQUIREMENTS PRIOR TO OR AT THE TIME OF PERMIT ISSUANCE;

C. THE APPLICABLE REQUIREMENTS OF THE ACID RAIN PROGRAM;

D. THE ABILITY OF EPA TO OBTAIN INFORMATION FROM THE OPERATOR PURSUANT TO SECTION 114 OF THE FEDERAL CLEAN AIR ACT;

E. THE APPLICABILITY OF STATE OR LOCAL REQUIREMENTS THAT ARE NOT "APPLICABLE REQUIREMENTS", AS DEFINED IN RULE 3000, AT THE TIME OF PERMIT ISSUANCE BUT WHICH DO NOT APPLY TO THE FACILITY, SUCH AS TOXICS REQUIREMENTS UNIQUE TO THE STATE; OR

F. THE APPLICABILITY OF REGULATORY REQUIREMENTS WITH COMPLIANCE DATES AFTER THE PERMIT ISSUANCE DATE. THIS PERMIT SHIELD SHALL NOT APPLY TO ANY OPERATIONAL CHANGE MADE PURSUANT TO THE OPERATIONAL FLEXIBILITY PROVISIONS OF DISTRICT RULE 3005.

[RULE 3004 (c)(1)]

Emissions And Requirements:

24. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
VOC: RULE 1153
NOX: RULE 1147

Appl. No. 556551: Thermal Oxidizer – Modification to vent two additional bakery ovens

All items in **Bold Type** are new conditions added to permit
All items in ~~Strikeout~~ are deleted items to permit

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. THERMAL OXIDIZER, ANGUIL ENVIRONMENTAL, CATALYTIC TYPE, MODEL 100, 7'-0" W. X 20'-0" L. X 6'-0" H., 4.0 MMBTU/HR, WITH MAXON OVENPACK 400 EB-4 BURNER.

2. EXHAUST SYSTEM WITH A 50-HP BLOWER VENTING OVEN NO. 1, **OVEN NO. 2, OVEN NO. 1B,** OVEN NO. 5, AND OVEN NO. 6.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]

2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]

3. THE OPERATOR SHALL MAINTAIN THIS AIR POLLUTION CONTROL SYSTEM AT MINIMUM CONTROL EFFICIENCY OF 95% VOC BY WEIGHT.
[RULE 1153, RULE 1303(B)(2)-OFFSET]

4. THIS EQUIPMENT SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULE 1147.
[RULE 1147]

5. EFFECTIVE 07/01/2020, THIS EQUIPMENT SHALL EMIT NO MORE THAN 30 PPM OF NOX, CALCULATED AS NO2, MEASURED BY VOLUME ON A DRY BASIS AT 3% O2. IN ADDITION, THIS EQUIPMENT SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULE 1147.
[RULE 1147]

6. A SOURCE TEST SHALL BE CONDUCTED TO VERIFY COMPLIANCE WITH THE CONTROL EFFICIENCY LEVEL SPECIFIED IN CONDITION NO. 3.

7. THE OPERATOR SHALL MAINTAIN ADEQUATE RECORDS TO VERIFY COMPLIANCE WITH CONDITION NO. 3 ABOVE AND BE MADE AVAILABLE TO THE EXECUTIVE OFFICER OR HIS REPRESENTATIVE UPON REQUEST.

8. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL CONDUCT SOURCE TEST ACCORDING TO THE CONDITIONS OF THIS PERMIT.

9. THE SOURCE TEST SHALL MEASURE THE VOC CONCENTRATION AT THE INLET AND OUTLET OF THE OXIDIZER TO DETERMINE CONTROL EFFICIENCY FOR COMPLIANCE WITH CONDITION NO. 3.

10. A SOURCE TEST PROTOCOL SHALL BE SUBMITTED WITHIN 60 DAYS AFTER INITIAL START-UP OF THE NEW BURNERS, UNLESS OTHERWISE APPROVED IN WRITING BY THE EXECUTIVE OFFICER.

11. A SOURCE TEST SHALL BE CONDUCTED WITHIN 180 DAYS AFTER INITIAL START-UP OF THE NEW BURNERS, UNLESS OTHERWISE APPROVED IN WRITING BY THE EXECUTIVE OFFICER.

12. SOURCE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH USEPA TEST METHOD 25, OR SCAQMD TEST METHOD 25.1. THE TEST SHALL BE CONDUCTED WHILE ALL OVENS VENTING TO THIS OXIDIZER ARE BAKING AT NORMAL OPERATING CAPACITY.

13. WRITTEN CORRESPONDENCE SHALL BE ADDRESSED TO SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, P.O. BOX 4941, DIAMOND BAR, CA 91765, AND REFERENCING APPLICATION NO. 556551.

14. WRITTEN NOTICE OF THE SOURCE TESTS SHALL BE SUBMITTED TO THE DISTRICT (ADDRESSED TO SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, P.O. BOX 4941, DIAMOND BAR, CA 91765) AT LEAST 14 DAYS PRIOR TO TESTING SO THAT AN OBSERVER MAY BE PRESENT.

15. TWO COMPLETE COPIES OF THE SOURCE TESTS REPORT SHALL BE SUBMITTED TO THE DISTRICT, WITHIN 45 DAYS AFTER THE TEST. THE REPORT SHALL INCLUDE, BUT NOT BE LIMITED TO THE VOC CONCENTRATION IN PPMV AT THE INLET AND OUTLET OF THE OXIDIZER, MEASURED ON A DRY BASIS AT 3% OXYGEN. THE FOLLOWING OPERATING DATA SHALL ALSO BE INCLUDED FOR EACH FIRING RATE:

A. EXHAUST FLOW RATES, IN ACTUAL CUBIC FEET PER MINUTE (ACFM),
B. FIRING RATES, IN BTU PER HOUR,
C. OXYGEN CONTENT OF THE EXHAUST GASES, IN PERCENT, AND

16. A TESTING LABORATORY CERTIFIED BY THE CALIFORNIA AIR RESOURCES BOARD IN THE REQUIRED TEST METHODS FOR CRITERIA POLLUTANT TO BE MEASURED, AND IN COMPLIANCE WITH DISTRICT RULE 304 (NO CONFLICT OF INTEREST) SHALL CONDUCT THE TEST.

17. SAMPLING FACILITIES SHALL COMPLY WITH THE DISTRICT GUIDELINES FOR CONSTRUCTION OF SAMPLING AND TESTING FACILITIES, PURSUANT TO RULE 217.

Periodic Monitoring:

18. THE OPERATOR SHALL OPERATE AND MAINTAIN THIS EQUIPMENT ACCORDING TO THE FOLLOWING REQUIREMENTS:

THE CATALYST BED INLET TEMPERATURE SHALL BE MAINTAINED AT A MINIMUM OF 600 DEGREES FAHRENHEIT WHENEVER THE EQUIPMENT IT SERVES IS IN OPERATION.

THE OPERATOR SHALL OPERATE AND MAINTAIN A TEMPERATURE MEASURING AND RECORDING SYSTEM TO CONTINUOUSLY MEASURE AND RECORD THE TEMPERATURES AT THE INLET AND OUTLET OF THE CATALYST BED PURSUANT TO THE OPERATION AND MAINTENANCE REQUIREMENTS SPECIFIED IN 40 CFR PART 64.7. SUCH A TEMPERATURE MEASURING AND RECORDING SYSTEM SHALL HAVE AN ACCURACY OF WITHIN $\pm$ 1% OF THE TEMPERATURE BEING MONITORED AND SHALL BE INSPECTED, MAINTAINED, AND CALIBRATED ON AN ANNUAL BASIS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS USING AN APPLICABLE AQMD OR EPA APPROVED METHOD.

FOR THE PURPOSE OF THIS CONDITION, A DEVIATION SHALL BE DEFINED AS WHEN THE COMBUSTION CHAMBER TEMPERATURE OF LESS THAN 600 DEGREES FAHRENHEIT OCCURS DURING THE NORMAL OPERATION OF THE EQUIPMENT IT SERVES. THE OPERATOR SHALL REVIEW THE RECORDS OF THE CATALYST BED INLET TEMPERATURE ON A DAILY BASIS TO DETERMINE IF A DEVIATION OCCURS OR SHALL INSTALL AN ALARM SYSTEM TO ALERT THE OPERATOR WHEN A DEVIATION OCCURS. WHENEVER A DEVIATION OCCURS, THE OPERATOR SHALL INSPECT THIS EQUIPMENT TO IDENTIFY THE CAUSE OF SUCH A DEVIATION, TAKE IMMEDIATE CORRECTIVE ACTIONS TO MAINTAIN THE COMBUSTION CHAMBER TEMPERATURE AT OR ABOVE 600 DEGREES FAHRENHEIT, AND KEEP RECORDS OF THE DURATION AND CAUSE (INCLUDING UNKNOWN CAUSE, IF APPLICABLE) OF THE DEVIATION AND THE CORRECTIVE ACTIONS TAKEN.

ALL DEVIATIONS SHALL BE REPORTED TO THE AQMD ON A SEMI-ANNUAL BASIS PURSUANT TO THE REQUIREMENTS SPECIFIED IN 40 CFR PART 64.9 AND CONDITION NOS. 22 AND 23 IN SECTION K OF THIS PERMIT. THE SEMI-ANNUAL MONITORING REPORT SHALL INCLUDE THE TOTAL OPERATING TIME OF THIS EQUIPMENT AND THE TOTAL ACCUMULATED DURATION OF ALL DEVIATIONS FOR EACH SEMI-ANNUAL REPORTING PERIOD SPECIFIED IN CONDITION NO. 23, SECTION K OF THIS PERMIT.

THE OPERATOR SHALL SUBMIT AN APPLICATION WITH AN QUALITY IMPROVEMENT PLAN (QIP) IN ACCORDANCE WITH 40 CFR PART 64.8 TO THE AQMD IF AN ACCUMULATION OF DEVIATIONS EXCEEDS 5 PERCENT DURATION OF THIS EQUIPMENT'S TOTAL OPERATING TIME, OR ANY EXCURSION OF TEMPERATURE RAGE AT THE INLET TO THE CATALYST MORE THAN 60 MINUTES, OR ANY EXCURSION OF DESTRUCTION EFFICIENCY BY THE CATALYST THERMAL OXIDIZER DURING 5 YEARS EMISSION SOURCE TESTING WHILE INLET TEMPERATURE IS WITHIN THE RANGES OF THIS PLAN, SHALL TRIGGER A QIP FOR ANY SEMI-ANNUAL REPORTING PERIOD SPECIFIED IN CONDITION NO. 23, SECTION

K OF THIS PERMIT. THE REQUIRED QIP SHALL BE SUBMITTED TO THE AQMD WITHIN 90 CALENDAR DAYS AFTER THE DUE DATE FOR THE SEMI-ANNUAL MONITORING REPORT.

THE OPERATOR SHALL CONDUCT ACTIVITY TEST FOR THE CATALYST BED ON AN ANNUAL BASIS. IN ADDITION, THE OPERATOR SHALL INSPECT AND MAINTAIN ALL COMPONENTS OF THIS EQUIPMENT ON AN ANNUAL BASIS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE OPERATOR SHALL KEEP ADEQUATE RECORDS IN A FORMAT THAT IS ACCEPTABLE TO THE AQMD TO DEMONSTRATE COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS SPECIFIED IN THIS CONDITION AND 40 CFR PART 64.9 FOR A MINIMUM OF FIVE YEARS.

[RULE 1303(a)(1); RULE 3004(a)(4); 40CFR Part 64]

19. A SOURCE TEST SHALL BE CONDUCTED AT LEAST ONCE EVERY FIVE YEARS TO DEMONSTRATE COMPLIANCE WITH THE OVERALL CONTROL EFFICIENCY FOR VOC SPECIFIED BY CONDITION NO. 3 ABOVE. THE **FIVE**~~THREE~~ OVENS SHALL BE OPERATED AT MAXIMUM RATES DURING THE SOURCE TEST.
[RULE 3004(A)(4)]

Emissions And Requirements:

20. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
VOC: RULE 1153
NOX: RULE 1147

BACKGROUND/HISTORY

Cajoleben Inc. submitted four applications to the District. One application was submitted on August 27th and three applications were submitted on October 2nd. The reason for submitting the application on August 27th was:

Application No.	Equipment	Action
555587	Bakery Oven	Existing Equipment without a Permit

The reason for submitting the three applications on October 2nd was:

Application No.	Equipment	Action
556550	Bakery Oven	Existing Equipment to vent to existing thermal oxidizer
556551	Thermal Oxidizer	Modification to vent two existing bakery ovens
556548	Title V revision	Reissue Title V Permit

Application No. 555587 was submitted as existing equipment operating at the facility without a permit. This application was evaluated shortly after it was submitted. The VOC emission calculation indicated that under normal operating conditions the oven would emit more than 1 pound per day. The company was informed that to operate the oven with VOC emission greater than 1 pound per day would require BACT. The company has an existing thermal oxidizer that is venting several of their existing bakery ovens. The company indicated that they would vent this existing bakery oven (Application No. 555587) to their existing thermal oxidizer so that the oven could operate with a VOC emission level greater than 1 pound per day. Therefore, the company submitted an additional application (Application No. 556551) to modify their thermal oxidizer to vent this additional oven. While deciding to vent this additional oven, the company also decided to add the venting of one more of their existing ovens (Oven No. 2) so that they could continue to be in compliance with their facility wide condition (THE TOTAL AMOUNT OF VOC EMISSIONS DISCHARGED TO THE ATMOSPHERE FROM THIS FACILITY SHALL NOT EXCEED 2040 POUNDS IN ANY ONE CALENDAR MONTH). Hence, the company has also submitted application No. 556560 to modify Oven No. 2 to vent to their thermal oxidizer.

Cajoleben, Inc., dba Galasso's Bakery has been in the business of bread manufacturing since 1968. Their products consist of French breads, sourdough breads, sliced breads, rolls, buns and specialty bread products. The company is currently operating under a Title V permit but is not in the RECLAIM program. The company is in the Title V program due to their high level of VOC emission.

Facility Type:

RECLAIM		Title V
SOx	NOx	
No	No	Yes

A more detailed explanation of the filing of the four applications listed above is explained below:

App. No. 556548 – Title V revision

The addition of a new oven to the company's Title V Permit (Oven No. 1B), the venting of two additional bakery ovens to an existing thermal oxidizer, and the modification of an existing thermal oxidizer to control two additional bakery ovens VOC emission constitutes a de minimis significant revision to a Title V permit which requires an application for submittal to EPA review.

Appl. No. 556550 – Bakery Oven No. 2

This bakery oven has been in operation at this facility for some time. The company has requested to have this oven venting to their existing thermal oxidizer to control the emission of VOC from this oven. This oven is currently operating under Permit No. G14578. This permit was issued as a result of the company replacing the burner with a new burner to come into compliance with the 30 ppm NOx level for Rule 1147. As I researched the previous application No. 521725 there was no evidence that the oven was source tested to show compliance with Rule 1147. More research indicated that the oven was source tested shortly after the company received the permit to operate. The source test indicated that the oven was operating at a NOx level of 30 ppm or less. (see appendix).

Appl. No. 555587 – Bakery Oven No. 1B

This bakery oven was installed and operated at this facility without a District Permit. The company has elected to file an application for a Permit to Operate this equipment to avoid enforcement action. There has not been any enforcement action prior to the submission of this application. This bakery oven was purchased from another company (Il Fornaio Panificio, Facility Id 150511) which had been issued an operating permit (Permit No. G21760) in 2012. This oven, under the previous owner, had been tested for compliance with Rule 1147 and meets the 30 ppm NOx emission level. However, the installation of this oven at the Cajoleben facility is considered new construction and therefore, is under the same Rule 1147 testing requirements as all of the other companies that install ovens whether they are new or have come from an existing operation. Therefore, this application has been submitted to obtain a Permit to Operate and to be evaluated for compliance with Rule 1147. The company has also requested that this oven be vented to their existing thermal oxidizer for additional control of VOC emission from the facility.

Appl. No. 556551 – Thermal Oxidizer

This oxidizer was first issued a permit to construct in 2005. Prior to 2005, the company was operating five ovens (Ovens No. 1, 2, 3, 5, and 6; at this time there was not an Oven No. 1B) without any control system. In 2005 the company was issued a notice of violation for exceeding a monthly VOC level of 2040 pounds. To remedy the situation, the company elected to install a thermal oxidizer. Three of the five bakery ovens (Oven No. 1, 5, and 6) were proposed to vent to the new oxidizer. In 2006, a source test confirmed that the oxidizer was operating incompliance with permit condition (Control efficiency of 95% or greater). A permit to operate was issued to the thermal oxidizer.

The increase in bread orders and the requirement to comply with BACT for new ovens has prompted the company to add the venting of two additional ovens (Oven No. 2 and Oven No. 1B) to the thermal oxidizer. With the venting of these two additional ovens the total number of ovens that are being vented to the thermal oxidizer will be five (5) ovens, oven no. 1, 2, 5, 6 and 1B.

PROCESS DESCRIPTION

Bakery Ovens

Both ovens referenced in this evaluation are used to bake bread type products. With bread type products, yeast is involved in the baking process and result in VOC emissions during the baking/fermentation process. Both applications have indicated that the material processed in the ovens will have a yeast percentage of 6% and a fermentation time of 1 hour. This confirms that these ovens will emit VOC emission. The amount will be determined in the Emission Section and any District rules that apply will be evaluated in the Rules Section of this evaluation.

Emission Control System

This company has a permitted thermal oxidizer (Permit No. F83750) that currently controls the VOC emission from Oven No. 1, 5, and 6. The proposed modification will allow five ovens located at this facility to vent to this thermal oxidizer. The thermal oxidizer was source tested when it was venting oven no. 1, 5, and 6 and showed that it was capable of achieving a VOC control efficiency of 95% or greater (see appendix). The control efficiency of the thermal oxidizer when venting all five (5) ovens has not been determined, but for emission calculations, it will be assumed that it will have the same control efficiency as it did when venting the three ovens. A source test condition will be imposed on the thermal oxidizer to confirm that the combined venting of the five ovens will result in a control efficiency for the thermal oxidizer of 95% or greater.

The venting of the additional bakery ovens to the thermal oxidizer will cause an increase in the air flow rate. The company has supplied some test data that indicates the exhaust flow rate from each of the ovens vented to the oxidizer which is shown below:

Exhaust Stack	Zone	Blower Exhausts (DSCFM)
Oven No. 1	1	189
Oven No. 1	2	143
Oven No. 1	3	273
Oven No. 2	1	339
Oven No. 2	2	250
Oven No. 2	3	345
Oven No. 5	1	729
Oven No. 5	2	225
Oven No. 5	3	1533
Oven No. 5	4	597
Oven No. 6	1	1368
Oven No. 1B	1	1876
Oven No. 1B	2	2040
Total		9907

The design capacity of the thermal oxidizer is 10,000 CFM. Even with ALL the ovens venting at the same time to the oxidizer will be approaching the design level, it is still within the range. Therefore, the additional venting will no surpass the design capacity of the oxidizer.

EMISSION CALCULATIONS

Application No. 556550
Combustion emissions

Heat input of burner = 3.0 MM Btu per hour

Natural gas consumption = 3,000,000 Btu / 1050 Btu - hour (cu. ft.) = **2,857 cu. ft. / hour**

Emissions from the Combustion of Natural Gas in 3.0 MM Btu/hr Oven:

ROG = 2,857 cu. ft. / Hour (7 lb / 10^6 cu. ft.) = **0.02 lb / hour** = **0.48 lb / day** = **175 lb / year**

NOx = 3,000,000 Btu / Hour (8710 dscf) / 10^6 Btu (**30 ppm**) / 10^6 (20.9 / 20.9 – 3.0) (46 lb NOx) / 385 scf
= **0.11 lb / hour** = **2.6 lb / day** = **949 lb / year**

SOx = 2,857 cu. ft. / Hour (0.83 lb / 10^6 cu. ft.) = **0.002 lb / hour** = **0.05 lb / day** = **18.3 lb / year**

CO = 3,000,000 Btu / hour (8710 dscf) / 10^6 Btu (**400 ppm**) / 10^6 (20.9 / 20.9 – 3.0) (28 lb CO) / 385 scf
= **0.89 lb / hour** = **21.4 lb / day** = **7,811 lb / year**

PM = 2,857 cu. ft. / hour (7.5 lb / 10^6 cu. ft.) = **0.021 lb / hour** = **0.50 lb / day** = **183 lb / year**

PM_{10} = PM = .021 lb / hour (0.5) = = **0.10 lb / hour** = **2.4 lb / day** = **876 lb / year**

Application No. 555587
Combustion emissions

Heat input of burner = 5.4 MM Btu per hour

Natural gas consumption = 5,400,000 Btu / 1050 Btu - hour (cu. ft.) = **5,143 cu. ft. / hour**

Emissions from the Combustion of Natural Gas in 5.4 MM Btu/hr Oven:

ROG = 5,143 cu. ft. / Hour (7 lb / 10^6 cu. ft.) = **0.036 lb / hour** = **0.864 lb / day** = **315 lb / year**

NOx = 5,400,000 Btu / Hour (8710 dscf) / 10^6 Btu (**30 ppm**) / 10^6 (20.9 / 20.9 – 3.0) (46 lb NOx / 385 scf)
= **0.20 lb / hour** = **4.8 lb / day** = **1,752 lb / year**

SOx = 5,143 cu. ft. / Hour (0.83 lb / 10^6 cu. ft.) = **0.0043 lb / hour** = **0.10 lb / day** = **36.5 lb / year**

CO = 5,400,000 Btu / hour (8710 dscf) / 10^6 Btu (**400 ppm**) / 10^6 (20.9 / 20.9 – 3.0) (28 lb CO / 385 scf)
= **1.60 lb / hour** = **38.4 lb / day** = **14,016 lb / year**

PM = 5,143 cu. ft. / hour (7.5 lb / 10^6 cu. ft.) = **0.039 lb / hour** = **0.94 lb / day** = **343.1 lb / year**

PM_{10} = PM = .039 lb / hour (0.5) = = **0.02 lb / hour** = **0.48 lb / day** = **175.2 lb / year**

Application No. 556551
Combustion emissions

Heat input of burner = 4.0 MM Btu per hour

Natural gas consumption = 4,000,000 Btu / 1050 Btu - hour (cu. ft.) = **3,810 cu. ft. / hour**

Emissions from the Combustion of Natural Gas in 4.0 MM Btu/hr Thermal Oxidizer:

ROG = 3,810 cu. ft. (7 lb) = **0.03 lb** = **0.72 lb** = **262 lb**
Hour 10^6 cu. ft. **hour** **day** **year**

NOx = 4,000,000 Btu (8710 dscf) (**90 ppm***) (20.9) (46 lb NOx)
Hour 10^6 Btu 10^6 20.9 – 3.0 385 scf
= **0.45 lb** = **10.8 lb** = **3942 lb**
hour **day** **year**

SOx = 3,810 cu. ft. (0.83 lb) = **0.003 lb** = **0.072 lb** = **26.3 lb**
Hour 10^6 cu. ft. **hour** **day** **year**

CO = 4,000,000 Btu (8710 dscf) (**400 ppm**) (20.9) (28 lb CO)
hour 10^6 Btu 10^6 20.9 – 3.0 385 scf
= **1.2 lb** = **28.8 lb** = **10512 lb**
hour **day** **year**

PM = 3,810 cu. ft. (7.5 lb) = **0.03 lb** = **0.72 lb** = **262 lb**
hour 10^6 cu. ft. **hour** **day** **year**

PM_{10} = PM = .03 lb (0.5) = = **0.015 lb** = **0.36 lb** = **131.5 lb**
hour **hour** **day** **year**

* Taken from previous application which was manufacturer guarantee

VOC baking emission

Application No. 556550 and 555587
VOC Emission from yeast fermentation and baking
Assume the same quantity of dough is processed through each oven:

VOC emission from fermentation and baking are calculated based on the data in Attachment A, Rule 1153.

ATTACHMENT A

Yt*	Pounds VOC/ton Bakery Product	Yt*	Pounds VOC/ton Bakery Product
1.0	0.8488	16.0	7.5176
1.5	1.0711	16.5	7.7399
2.0	1.2934	17.0	7.9622
2.5	1.5157	17.5	8.1845

3.0	1.7380	18.0	8.4068
3.5	1.9603	18.5	8.6291
4.0	2.1826	19.0	8.8514
4.5	2.4049	19.5	9.0737
5.0	2.6272	20.0	9.2959
5.5	2.8495	20.5	9.5182
6.0	3.0718	21.0	9.7405
6.5	3.2941	21.5	9.9628
7.0	3.5163	22.0	10.1851
7.5	3.7386	22.5	10.4074
8.0	3.9609	23.0	10.6297
8.5	4.1832	23.5	10.8520
9.0	4.4055	24.0	11.0743
9.5	4.6278	24.5	11.2966
10.0	4.8501	25.0	11.5189
10.5	5.0724	25.5	11.7412
11.0	5.2947	26.0	11.9635
11.5	5.5170	26.5	12.1857
12.0	5.7393	27.0	12.4080
12.5	5.9616	27.5	12.6303
13.0	6.1839	28.0	12.8526
13.5	6.4061	28.5	13.0749
14.0	6.6284	29.0	13.2972
14.5	6.8507	29.5	13.5195
15.0	7.0730	30.0	13.7418
15.5	7.2953		

* Yt = (yeast percentage) x (fermentation time)
If yeast is added in 2 steps, Yt = (initial yeast percentage) (total fermentation time) + (remaining Yeast percentage) (remaining fermentation time)

For the oven under Application No. 556550 the maximum yeast percent is 6 and the maximum fermentation time is 1 hour. Therefore:

Yt = 6% x 1 hour = 6

From Attachment A above, a Yt value of 6 gives us a VOC emission factor of:

3.0718 lb VOC / ton of Bakery Product

Following is the process information submitted by Galosso:

Operating Schedule:	24 hr/day	7 days/wk	52 wks/yr
Maximum throughput:	**10,000 lb/day**	300,000 lb/month	
Yeast Percentage:	6 %		
Fermentation Time:	1 hour		
VOC Control Efficiency:	95%		

Therefore the VOC emission is:

Uncontrolled VOC emission:

(3.0718 lb VOC/ton of product) X (10,000 lb/day) X (1 ton/2000 lb) =**15.359 lbs VOC/day**

(15.359 lbs/day)/(24 hrs/day) =**0.64 lbs VOC/hr**

Controlled VOC emission:

(1-0.95) x 15.359 lbs VOC = **0.768 lbs VOC/day**

(0.768 lbs/day)/(24 hrs/day) = **0.032 lbs VOC/hr**

Summary of Emissions:

		Hourly Max. Emissions lb/hr	Daily Max. Emissions lb/day	Annual Max. Emissions lb/yr	30 Day Average Emissions lb/day
App No. 556550	ROG Baking process (R1)	0.64	15.4	5,621	15.4
	ROG Baking process (R2)	0.032	0.768	280	0.768
App No. 556550 Combustion Emission	CO	0.89	21.4	7,811	21.4
	NOx	0.11	2.6	949	2.6
	PM_{10}	0.1	2.4	876	2.4
	ROG	0.02	0.48	175	0.48
	SOx	0.002	0.05	0.05	0.05

For application No. 556550 the total ROG 30 day average is 0.48 lb/day + 0.768 lb/day = 1.25 lbs/day

		Hourly Max. Emissions lb/hr	Daily Max. Emissions lb/day	Annual Max. Emissions lb/yr	30 Day Average Emissions lb/day
App No. 555587	ROG Baking process (R1)	0.64	15.4	5,621	15.4
	ROG Baking process (R2)	0.032	0.768	280	0.768
App No. 555587 Combustion Emissions	CO	1.6	38.4	14,016	38.4
	NOx	0.20	4.8	1,752	4.8
	PM_{10}	0.02	0.48	175.2	0.48
	ROG	0.036	0.864	315.4	0.864
	SOx	.0043	0.10	36.5	0.10

For application No. 555587 the total ROG 30 day average is 0.768 lb/day + 0.864 lb/day = 1.63 lbs/day

		Hourly Max. Emissions lb/hr	Daily Max. Emissions lb/day	Annual Max. Emissions lb/yr	30 Day Average Emissions lb/day
App No. 556551 Combustion Emissions	CO	1.2	28.8	10512	28.8
	NOx	0.45	10.8	3942	10.8
	PM_{10}	0.015	0.36	132	0.36
	ROG	0.03	0.72	262	.72
	SOx	.003	0.072	26.3	.072

RULE EVALUATION:

The following rule analysis will be for all three applications, Application No. 555587, 556550, and 556551.

Rule 212: **Standards for Approving Permits –**

Applies to all three applications

(c)(1) The closest school to this facility is Mission Bell Elementary School and Mira Loma Middle School which are located 1.0 miles away. The distant in feet is (1.0 mi) x (5,280 ft/mi) = 5,280 feet. Since this is more than 1000 feet, a public notice is not required. A map and printout of the closest schools K-12 near this location is shown in the Appendix.

(c)(2) This facility will **not** have on-site emission increases exceeding any of the daily maximums specified in subdivision (g) of this rule. Those limits are:

Air Contaminant	Daily Maximum in lbs per Day
Volatile Organic Compounds	30
Nitrogen Oxides	40
PM_{10}	30
Sulfur Dioxide	60
Carbon Monoxide	220
Lead	3

(c)(3)(A)(i) This facility will have an increase in emissions of toxic air contaminants (combustion emission) and a determination has been made that the maximum individual cancer risk of each toxic air contaminant is **less than one in a million** during a lifetime and that the total facility-wide maximum individual cancer risk is **less than ten in a million** using the risk assessment procedures and toxic air contaminants specified under Rule 1402.

Rule 401: **Visible Emissions** - Visible emissions is not expected from the operation of the 4.2 or the 3.0 MMBTU/hr bakery ovens. There are no powders used in the operation of the ovens and the only particulate emissions will be from the combustion of natural gas from the oven burners. Visible emissions from a small natural gas source should not cause any problems. Therefore, compliance with this rule is expected.

Rule 402: **Public Nuisance** - The only possible nuisance from the operation of the 4.2 MMBTU/hr and 3.0 MMBTU/hr bakery ovens is the smell of baked bread products. The company is located in an industrial area and therefore, compliance with this rule is expected.

Rule 407: **Liquid and Gaseous Air Contaminants**

(a) A person shall not discharge into the atmosphere from any equipment:
(1) Carbon monoxide (CO) exceeding 2,000 ppm by volume measured on a dry basis, averaged over 15 consecutive minutes.
(2) Sulfur compounds which would exist as liquid or gas at standard conditions, calculated as sulfur dioxide (SO_2) and averaged over 15 consecutive minutes, exceeding:
(A) In the South Coast Air Basin, 500 ppm by volume, effective July 1, 1982.
(B) In the Southeast Desert Air Basin portion of Riverside County:
(i) 500 ppm by volume for equipment which is issued a permit to construct or permit to operate after July 1, 1982.
(ii) 1,500 ppm by volume until January 1, 1984, and 500 ppm by volume thereafter for equipment that has been issued a permit to construct or permit to operate prior to July 1, 1982.

The company has replaced the burners in these two ovens with with Low NOx burners which has the capability of meeting the CO requirement of 2,000 ppmv. The company will also be purchasing their natural gas from a supplier that will allow Galasso to meet the 500 ppm SO_2.

RULE 409. **Combustion Contaminants**

A person shall not discharge into the atmosphere from the burning of fuel, combustion contaminants exceeding 0.23 gram per cubic meter (0.1 grain per cubic foot) of gas calculated to 12 percent of carbon dioxide (CO_2) at standard conditions averaged over a minimum of 15 consecutive minutes.

The company has replaced the burners of these ovens with Low NOx burners that meet the above requirements of this rule.

RULE 431.1. Sulfur Content of Gaseous Fuels

(c) Sulfur Content Requirements
(2) Other Gaseous Fuels
On or after the applicable compliance dates specified in Table 1, a person shall not burn in equipment requiring a Permit to Operate, purchase, transfer, sell or offer for sale for use in the jurisdiction of the District, any gaseous fuel containing sulfur compounds calculated as H_2S, in excess of the concentration limits as measured over the averaging periods for various gaseous fuels as specified in Table 1.

TABLE 1

Fuel Type	Sulfur Limits ppmv	Averaging Period	Compliance Date On or After
Refinery Gas			
Small Refiners	40	4 hrs	May 4, 1996
Other Refiners	40	4 hrs	May 4, 1994
Landfill Gas	150	Daily	June 12, 1998
Sewage Digester Gas	40 or 40 and 500	Daily or Monthly and 15-minutes	November 17, 1995 November 17, 1995
Other Gases	**40**	4 hrs	May 4, 1994

The company will be burning natural gas from the regional gas company which supplies fuel that meets the above limit of 40 ppm for other fuels.

Rule 1147: NOx REDUCTIONS FROM MISCELLANEOUS SOURCES

Application No. 555587
Application No. 556550
Application No. 556551

(c) Requirements

(1) On or after January 1, 2010 any person owning or operating a unit subject to this rule shall not operate the unit in a manner that exceeds the applicable nitrogen oxide emission limit specified in Table 1 at the time a District permit is required for operation of a new, relocated or modified unit or, for in-use units, in accordance with the compliance schedule in Table 2, or at the time of a combustion modification.

The rule definition of IN-USE UNIT means any UNIT that is demonstrated to the Executive Officer that it was in operation at the current location prior to January 1, 2010.

The history of Application No. 555587 indicates that this oven was located and operated by another company prior to January 1, 2010 (see Appendix) and therefore, does not qualify as an "IN USE UNIT". The oven under Application No. 555587 should therefore be operating with a burner that can achieve a NOx emission level of 30 ppm or less. This oven was tested during the previous ownership and did achieve a NOx emission level of 30 ppm or less. The new owner (Galasso) is required to test this oven at their facility since it may not be operating under the exact same operating conditions that it was at the previous owner's location.

Application No. 556550 is an oven that has been operating at this facility prior to January 1, 2010 and therefore is classified as an "IN USE UNIT". This oven does not have to be in compliance with the 30 ppm NOx level until July 1, 2014. In 2011, Galasso submitted Application No. 521725 for a modification to replace an existing burner with a low NOx burner for compliance with Rule 1147. The previous application folder did not show any evidence that a source test was performed to verify Rule 1147 compliance. I spoke to the engineer that processed this application and he had in his files a source test that was conducted on Oven No. 2 shortly after the Permit to Operate was issued. Even though the permit did not state that the company had to perform a source test, the company did perform a source test and submitted the results to the District. The District approved the source and the results indicated this oven was in compliance with Rule 1147 30 ppm NOx emission level.

Application No. 556551 was submitted as a modification to allow the venting of two existing bakery ovens. Upon further investigation, this thermal oxidizer was first permitted in 2005. Reviewing the previous application to 556551 (Application No. 440540) there is no evidence that the burner for this thermal oxidizer has ever been tested to determine its NOx emission level. Upon the adoption of Rule 1147 this oxidizer is subject to the requirement of this rule. This thermal oxidizer was installed in 2005 as a new unit. Table 2 below indicates that any unit that was manufactured after 1997 has a 15 year extension from the date that it was manufactured before it has to comply with Rule 1147 requirement. Since this unit was installed in 2005, 15 years from that date is 2020. Therefore, this thermal oxidizer does not have to comply with the 30 ppm NOx level until the year 2020. A permit condition will be listed on the permit to state the compliance date of this unit.

Table 1 – NO_x Emission Limit

Equipment Category(ies)	NOx Emission Limit PPM @ 3% O_2, dry or Pound/mmBtu heat input		
	Process Temperature		
Gaseous Fuel-Fired Equipment	≤ 800° F	> 800 ° F and < 1200° F	≥ 1200 ° F
Oven, Dehydrator, Dryer, Heater, Kiln, Crematory, Incinerator, Calciner, Cooker, Roaster, Furnace, or Heated Storage Tank	30 ppm or 0.036 lb/mmBtu	30 ppm or 0.036 lb/mmBtu	60 ppm or 0.073 lb/mmBtu

Table 2 – Compliance Schedule for In-Use Units

Equipment Category(ies)	Submit Permit Application	Unit Shall Be in Compliance
Remediation UNIT manufactured prior to 1998	Seven months prior to combustion modification or change of location.	Upon combustion modification or change of location beginning March 1, 2012
Tar Pot		All new permit applications beginning January 1, 2013

Afterburner, degassing unit, catalytic oxidizer, thermal oxidizer, vapor incinerator, evaporator, food oven, fryer, heated process tank, parts washer or spray booth make-up air heater manufactured prior to 1998	December 1, 2013	July 1, 2014
Other UNIT manufactured prior to 1986	December 1, 2011	July 1, 2012
Other UNIT manufactured prior to 1992	December 1, 2011	July 1, 2012
Other UNIT manufactured prior to 1998	December 1, 2012	July 1, 2013
Any UNIT manufactured after 1997	December 1 of the year prior to the compliance date	July 1 of the year the unit is 15 years old

Rule 1153: COMMERCIAL BAKERY OVENS

(c) Requirements

(1) No person shall operate an existing bakery oven unless VOC emissions are reduced by at least:

(A) 70 percent by weight (as carbon) for an oven with a base year average daily VOC emissions of 50 pounds or more, but less than 100 pounds.

(B) 95 percent by weight (as carbon) for an oven with a base year average daily VOC emissions of 100 pounds or more.

(2) No person shall operate a new bakery oven unless VOC emissions are reduced by at least 95 percent by weight (as carbon) if the uncontrolled average daily VOC emissions are 50 pounds or more.

The oven under Application No. 555587 is subject to Section (2) of this rule and the oven under Application No. 556550 is subject to Section (1) of this rule. For a maximum 10,000 pounds per day of bakery dough throughput, the VOC emission calculation for the 3.0 and 4.2 MMBTU/hr bakery ovens is 15.4 lbs/day for each which is less than the minimum requirement of 50 pounds per day per the rule requirement. Therefore, these ovens are not required to reduce VOC emission by at least 95% per Rule 1153.

Reg XIII: RULE 1303. REQUIREMENTS (BACT)

(a) Best Available Control Technology (BACT):

(1) The Executive Officer or designee shall deny the Permit to Construct for any relocation or for any new or modified source which result in an emission increase of any non attainment air contaminant, any ozone depleting compound, or ammonia, unless BACT is employed for the new or relocated source or for the actual modification to an existing source.

Application No. 555587

The existing bakery Oven No. 1B (Application No. 555587) operating without a prior permit is subject to BACT analysis. Since this facility is a Title V facility it is a Major Source and therefore, in the BACT Guidelines for Major Sources a facility is subject to LAER for all criteria pollutants.

The emission calculation in the "Emission Section" of this evaluation indicates that the VOC emission level from the bakery oven with a throughput of 10,000 pounds of dough per day is 15.4 pounds per day. This value is greater than 1 pound per day and therefore, is subject to LAER.

LAER for a bakery oven is a thermal oxidizer or similar control. The company does have a catalytic oxidizer that is used to control VOC emission from several bakery ovens at the facility. The company has been notified that this oven is subject to BACT/LAER and has therefore submitted an application (Application No. 556551) to have their thermal oxidizer modified to vent the exhaust of this oven for the control of VOC emission.

A source test condition will be placed on the permit of the thermal oxidizer to verify that the VOC control efficiency will be a minimum of 95% or more for compliance with BACT/LAER.

Application No. 556550

The modification of Oven No. 2 to vent to an existing thermal oxidizer does not cause the equipment to have a net emission increase and is therefore, NOT subject to BACT/LAER analysis.

Application No. 556551

The venting of additional oven exhaust to this thermal oxidizer does not cause an increase to the combustion emission levels of this thermal oxidizer. Therefore, there is not emission increase to cause this equipment to be evaluated for BACT.

RULE 1303 REQUIREMENTS (OFFSET)

(b) The Executive Officer or designee shall, except as Rule 1304 applies, deny the Permit to Construct for any new or modified source which results in a net emission increase of any nonattainment air contaminant at a facility, unless each of the following requirements is met:

(2) Emission Offsets

(A) Emission Reduction Credits Unless exempt from offsets requirements pursuant to Rule 1304, emission increases shall be offset by either Emission Reduction Credits approved pursuant to Rule 1309, or by allocations from the Priority Reserve in accordance with the provisions of Rule 1309.1, or

allocations from the Offset Budget in accordance with the provisions of Rule 1309.2. Offset ratios shall be 1.2-to-1.0 for Emission Reduction Credits and 1.0-to-1.0 for allocations from the Priority Reserve, except for facilities not located in the South Coast Air Basin (SOCAB), where the offset ratio for Emission Reduction Credits only shall be 1.2-to-1.0 for VOC, NOx, SOx and PM_{10} and 1.0-to-1.0 for CO.

VOC OFFSETS

This facility has a Title V permit that allows all the equipment to operate under a facility wide VOC limit of:

> THE TOTAL AMOUNT OF VOC EMISSIONS DISCHARGED TO THE ATMOSPHERE FROM THIS FACILITY SHALL NOT EXCEED 2040 POUNDS IN ANY ONE CALENDAR MONTH.
> [RULE 1303(b)(2)-OFFSET]

The following is a sample VOC calculation to verify that the final VOC emission level from the facility will be in compliance with the current "Facility Wide VOC limit".

Each oven is capable of processing approximately 10,000 pounds of dough per 24 hours of operation. Therefore, for all six oven the total throughput would be 60,000 pounds of dough per 24 hours.

The uncontrolled VOC emission level for each of the six ovens is:

16.4 pounds VOC (bread emission 15.4 lbs + approximately 1.0 lb combustion emission) per oven

The **controlled VOC emission level is calculated for the five ovens that are vented to oxidizer is:**

(1 – 0.95) X (5) X (16.4 lbs VOC) = **4.1 lbs VOC per day**

With the assumption that the oven will operate 24 hours per day and 30 days per month, the monthly VOC emission level will be:

One Oven (uncontrolled) **= 16.4 lbs VOC**
Five Ovens (controlled) **= 4.1 lbs VOC**

Total **= 20.5 lbs VOC per day**

The monthly VOC emission level from these ovens is approximately 20.5 lbs VOC/day X 30 days

= 615 lbs VOC/month

This value of 615 pounds per month is well below the "Facility Wide Condition" of 2,040 pounds per month. Therefore, compliance with the offset requirements of this rule will be met.

NOX OFFSETS

The current Potential to Emit for NOx for the facility is shown below:

Application No.	Oven No.	Criteria Pollutant
440541	#1	4
521725	#2	3
555380	#3	4
555587	#1B	NEW
440543	#5	1
440544	#6	3
440540	Oxidizer	11
TOTAL		26

The NOx emission from the new oven (Oven No. 1B) is 4.8 pounds per day. Multiplying this amount by the offset factor of 1.2, the total offset requirement is 5.76 pounds of NOx or 6 pounds of NOx offsets.

The company was notified of the requirement to provide offsets and choose to operate all the permitted NOx emitting equipment under a "bubble" of 26 pounds NOx per day. Since offsets are calculated based on a 30 day average the company will be required to limit their NOx emission to a monthly value of (30 day average x 26 lbs/day = 780 lbs/month). The company has agreed to meter each of their ovens and thermal oxidizer so that they can perform a calculation to verify compliance with the monthly limit. This limit and a calculation method with the appropriate emission factors will be part of the "facility wide conditions" in the Title V permit. The NSR entry for Application No. 555587 (Oven No. 1B) will 0 lbs/day for the 30 day average.

Compliance with the offset requirements is expected.

Rule 1401 **New Source Review Of Toxic Air Contaminants -** This rule specifies limits for maximum individual cancer risk (MICR), cancer burden, and non cancer acute and chronic hazard index (HI) from new permit units, relocations, or modifications to existing permit units which emit toxic air contaminants listed in Table I of this regulation.

Of the applications submitted for this evaluation, only the existing oven operating without a permit is subject to a Rule 1401 rule risk analyst. Oven No. 2 and the

Thermal Oxidizer will not have an emission increase in their toxic emission due to their modification and therefore will not require a risk analsysis. A risk analyst will be performed on the emission from the operation of the bakery oven (Application No. 555587). The combustion of natural gas does generate specific compounds that are listed in Rule 1401 and therefore a risk analysis is necessary.

The emission of ethanol from the baking and fermentation process is not a compound that is listed in Rule 1401 and therefore does not require a risk analysis.

TIER II ANALYSIS

Combustion Risk Analysis

Cancer Risk

Application No. 555587

Tier2 Analysis

Compound	Residential	Commercial
	MICR	**MICR**
	4.39E-7	4.66E-08
	PASSED	**PASSED**

Hazard Index

	Chronic	**Acute**
	Less than 1	Less than 1
	PASSED	**PASSED**

Green House Gas Emission:

As part of maintaining a District inventory of Green House Gas Emission any natural gas source is subject to the following calculations and input into the NSR data base:

Greenhouse gas calculation for natural gas:

EF: CO_2 = 53.02 kg/MMBtu
CH_4 = 1.0 g/MMBtu
N_2O = 0.10 g/MMBtu

Calculation:

Application No. 556550

CO_2:

R_1 = 3.0 MMBtu/hr x 53.02 kg CO_2/MMBTU x 2.2046 lb/kg = 350 lb/hr

CH_4:

R_1 = 3.0 MMBtu/hr x 1.0 g CH_4/MMBTU x 0.0022046 lb/g = 0.0066 lb/hr

N_2O:

R_1 = 3.0 MMBtu/hr x 0.10 g N_2O/MMBTU x 0.0022046 lb/g = 0.00066 lb/hr

Application No. 555587

CO_2:

R_1 = 5.4 MMBtu/hr x 53.02 kg CO_2/MMBTU x 2.2046 lb/kg = 631 lb/hr

CH_4:

R_1 = 5.4 MMBtu/hr x 1.0 g CH_4/MMBTU x 0.0022046 lb/g = 0.012 lb/hr

N_2O:

R_1 = 5.4 MMBtu/hr x 0.10 g N_2O/MMBTU x 0.0022046 lb/g = 0.012 lb/hr

Application No. 556551

CO_2:

R_1 = 4.0 MMBtu/hr x 53.02 kg CO_2/MMBTU x 2.2046 lb/kg = 468 lb/hr

CH_4:

R_1 = 4.0 MMBtu/hr x 1.0 g CH_4/MMBTU x 0.0022046 lb/g = 0.0088 lb/hr

N_2O:

R_1 = 4.0 MMBtu/hr x 0.10 g N_2O/MMBTU x 0.0022046 lb/g = 0.00088 lb/hr

CONCLUSIONS/RECOMMENDATIONS

Application No. 555587, Existing equipment operating without a permit is subject to BACT analysis since the facility is a Major Source. The evaluation of this equipment indicated a VOC emission level greater than 1 pound per day therefore, it is subject to BACT. BACT for VOC emission from an oven is a catalytic oxidizer with a control efficiency of 95% or greater or any other approved control equipment with equivalent control. It is proposed through this application to vent this oven to the existing thermal oxidizer at the facility. In addition, the oven is required to meet a 30 ppm NOx

emission level per Rule 1147. A source test will be conducted to verify compliance. Compliance with District Rules and Regulations is expected to be achieved.

Application No. 556550, Modification to vent this existing oven to their existing thermal oxidizer will reduce VOC emission from this facility. This oven is in compliance with Rule 1147 NOx requirement. It is expected that this equipment will continue to be incompliance with District Rules and Regulations.

Application No. 556551, Modification to oxidizer to vent two existing ovens. The additional exhaust flow to the oxidizer from the additional two ovens shows that the oxidizer can handle this additional load. A source test will be conducted to determine what the overall control efficiency is with the addition of the two ovens. It is expected that this oxidizer will be incompliance with all District Rules and Regulations when testing is completed.